

## REMARKS

This responds to the Office Action mailed on April 10, 2009.

Claims 1, 9 and 17 are amended, claims 3-4, 11-12 and 19-20 were previously canceled, and no claims are added; as a result, claims 1-2, 5-10, 13-18 and 21-24 remain pending in this application.

### § 112 Rejection of the Claims

Claims 1-2, 5-10, 13-18, and 21-24 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. The Board of Patent Appeals and Interferences has stated:

In rejecting a claim under the second paragraph of 35 U.S.C. § 112, it is incumbent on the examiner to establish that one of ordinary skill in the pertinent art, when reading the claims in light of the supporting specification, would not have been able to ascertain with a reasonable degree of precision and particularity the particular area set out and circumscribed by the claims. *Ex parte Wu*, 10 USPQ 2d 2031, 2033 (B.P.A.I. 1989)(citing *In re Moore*, 439 F.2d 1232, 169 USPQ 236 (C.C.P.A. 1971); *In re Hammack*, 427 F.2d 1378, 166 USPQ 204 (C.C.P.A. 1970)).

The M.P.E.P. adopts this line of reasoning, stating that:

The essential inquiry pertaining to this requirement is whether the claims set out and circumscribe a particular subject matter with a reasonable degree of clarity and particularity. Definiteness of claim language must be analyzed, not in a vacuum, but in light of:

- (1) The content of the particular application disclosure;
- (2) The teachings of the prior art; and
- (3) The claim interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made. *M.P.E.P.* § 2173.02.

Further, a claim is indefinite only if the claim is “insolubly ambiguous.” *Energizer v. ITC*, 2007-1197 (Fed. Cir. 2007). A claim term is insolubly ambiguous if it is not amenable to construction, cannot be given any reasonable meaning, or a person of skill would not understand what is claimed.

With respect to claim 1, the Office Action states that “it is unclear what are the criteria for the occurrence of the context shifting event? (i.e. failure, load balancing or interrupt?)” In response, Applicant notes that the specification, at page 8, line 21, to page 9, line 19, describes

various context shifting events, including signals, exceptions, non-local gotos, and system calls. Each of these context shifting events and their causes, along with others, are known to those of skill in the art. Furthermore, it is neither essential nor relevant to the claimed subject matter what causes the conflict shifting event; all that is required for the claim is that a context shifting event occurs.

The Office Action further states with respect to line 10 of claim 1 that:

it is unclear what is the criteria for migrating one of the plurality of the program units and what are the criteria to migrate more of the plurality of the program unit? And what are the conditions for the selection of the one of the plurality of multiple processing units to which the program units are migrated. (i.e. is it anyone of the plurality of processor unit or the one that has most of the program units associated with one process?).

In response, Applicant notes that the criteria for migrating is clearly recited in claim 1 as “the occurrence of a context shifting event.” As to which of the multiple processing units is selected, Applicant notes that any method of selection now known or developed in the future may be used. It is neither necessary nor relevant to the operation of the claimed invention how such a selection is made; all that is relevant for the claim is that a selection occurs.

The Office Action further states with respect to lines 12 and 15 that the use of the phrase “such that” renders the claim scope indefinite because the claim recites “language that suggests or makes optional but does not require steps to be performed...” Applicant respectfully disagrees with this interpretation of the claim in the Office Action, and submits that the claim language in fact required migration to a specific multiple processor unit and thus did not recite language that was optional. However, in order to expedite prosecution and reduce issues for any potential appeals, Applicant has amended claims 1, 9 and 17 to remove the “such that” language and yet more positively recite particular elements of the claim.

In view of the above discussion and amendments to claims 1, 9 and 17, Applicant respectfully submits that the claim language discussed above for claims 1, 9 and 17, when analyzed in light of the content of the application disclosure, is not indefinite. Applicant respectfully submits that the rejection of claims 1, 9 and 17 has been overcome, and that claims 1, 9 and 17 are in condition for allowance.

§ 103 Rejection of the Claims

Claims 1-2, 5-10, 13-18, and 21-24 were rejected under 35 U.S.C. § 103(a) as being obvious over Shaylor (U.S. Publication No. 2004/0117793, hereinafter “Shaylor”) in view of Gillespie (U.S. Patent No. 6,269,391, hereinafter “Gillespie”) and further in view of Koenen (U.S. Publication No. 2004/0019891, hereinafter “Koenen”). The determination of obviousness under 35 U.S.C. § 103 is a legal conclusion based on factual evidence. *See Princeton Biochemicals, Inc. v. Beckman Coulter, Inc.*, 411 F.3d 1332, 1336-37 (Fed.Cir. 2005). The legal conclusion that a claim is obvious within § 103(a) depends on at least four underlying factual issues set forth in *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17, 86 S.Ct. 684, 15 L.Ed.2d 545 (1966). The underlying factual issues set forth in *Graham* are as follows: (1) the scope and content of the prior art; (2) differences between the prior art and the claims at issue; (3) the level of ordinary skill in the pertinent art; and (4) evaluation of any relevant secondary considerations.

The Examiner has the burden under 35 U.S.C. § 103 to establish a *prima facie* case of obviousness. *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir.1988). To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested, by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974); M.P.E.P. § 2143.03. “All words in a claim must be considered in judging the patentability of that claim against the prior art.” *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970); M.P.E.P. § 2143.03. As part of establishing a *prima facie* case of obviousness, the Examiner’s analysis must show that some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead an individual to combine the relevant teaching of the references. *Id.* To facilitate review, this analysis should be made explicit. *KSR Int’l v. Teleflex Inc., et al.*, 127 S.Ct. 1727; 167 L.Ed 2d 705; 82 USPQ2d 1385 (2007) (citing *In re Kahn*, 441 F. 3d 977, 988 (Fed. Cir. 2006)). Applicant respectfully submits that claims 1-2, 5-10, 13-18, and 21-24 are not obvious because the claims recite elements not found in the combination of Shaylor, Gillespie and Koenen.

For example, claim 1 as amended recites “migrating each of one or more of the plurality of program units that are not executing on a selected multiple processor unit of the plurality of

multiple processing units to the selected multiple processor unit.” Claims 9 and 17 as amended recite similar subject matter. The Office Action asserts that Shaylor, at paragraphs [0010], [0082] and [0084], teaches the recited language. Applicant respectfully disagrees with this interpretation of Shaylor. At paragraph [0010], Shaylor states “one or more of a multi-threaded process’s threads can be migrated to various of the processors available, thus allowing load balancing.” Thus rather than migrating threads to a selected multiple processor unit, Shaylor teaches that processes are distributed to various processor units in order to achieve load balancing. Further, paragraph [0088] states that “tasks/threads need not be bound to a given processor.” Nowhere does Shaylor teach or suggest that each of the threads associated with a process are migrated to a selected multiple processor unit. Rather, Shaylor discusses making tasks preemptible or non-preemptible to simplify debugging and operation. Thus, Shaylor does not teach or suggest “migrating each of one or more of the plurality of program units that are not executing on a selected multiple processor unit of the plurality of multiple processing units to the selected multiple processor unit” as recited in claim 1 and similarly recited in claims 9 and 17. Further, Applicant has reviewed Gillespie and Koenen and can find no teaching or suggestion of the recited language. Therefore, claims 1, 9 and 17 recite elements not found in the combination of Shaylor, Gillespie and Koenen, resulting in differences between claims 1, 9 and 17 and the combination. As a result, claims 1, 9 and 17 are not obvious in view of the combination. Applicant respectfully requests reconsideration and the withdrawal of the rejection of claims 1, 9 and 17.

Claims 2 and 5-8 depend from claim 1; claims 10 and 13-16 depend from claim 9; and claims 18 and 21-24 depend from claim 17. These dependent claims inherit the elements of their respective base claims and are therefore believed to be allowable for at least the reasons discussed above regarding their respective base claims 1, 9 and 17, and are further allowable in view of the distinctions provided in the dependent claims. Applicant respectfully requests reconsideration and the withdrawal of the rejection of claims 2, 5-8, 10, 13-16, 18 and 21-24.

**AMENDMENT AND RESPONSE UNDER 37 C.F.R. § 1.111**

Serial Number: 10/643,587

Filing Date: August 18, 2003

Title: SCHEDULING SYNCHRONIZATION OF PROGRAMS RUNNING AS STREAMS ON MULTIPLE PROCESSORS

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Dkt: 1376.717US1

**CONCLUSION**

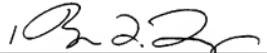
Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's representative at (612) 373-6954 to facilitate prosecution of this application.

If necessary, please charge any additional fees or deficiencies, or credit any overpayments to Deposit Account No. 19-0743.

Respectfully submitted,

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Date October 13, 2009

By 

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**CERTIFICATE UNDER 37 CFR 1.8:** The undersigned hereby certifies that this correspondence is being filed using the USPTO's electronic filing system EFS-Web, and is addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 13th day of October, 2009.

CHERYL L. KNAPP

Name



Signature